

Compano Reader IR346RU - SENSITIVITY and SHADING CORRECTION

Precondition:

- The scanning unit of the reader has been cleaned before.
- The scanner data have been copied to a floppy diskette by using the service program PC-MUTL.

Check sensitivity setting:

1. Uniformly expose a 35x35 cm or 35x43 cm (14x14", 14x17") IP with a dosage of about 1mR (8.7 μ Gy) at about 80kV. Use a large SID (min.1.8m). Don't use any filters. Open the shutters of the collimator completely. Green label of the cassette shows to the anode of the tube.
Check the dosage with a dosimeter.
2. Wait 10 minutes before entering the cassette into the reader. Select examination: **SERVICE/ TEST** and the view **SENSITIVITY**. Be sure that this view is programmed to EDR = 1 (semi mode) and MRM code 0900.
3. Compano system:
For the result look at the EasyVision.
S value: 170 ... 250
Pixel value: 450 ... 570 all over the image

Compano S systems:

For the result look at the film:

S value: 170 ... 250

Density: 1.0...1.3...1.6

If not perform the automatic sensitivity and shading correction.

Note:

It is possible to use the double dose (2 mR/ 17.4 μ Gy). Then the S value should be in the range 85 ... 115.

Adjust sensitivity and shading correction:

1. Start the normal application mode and an examination under SERVICE/ TEST, so that the green ready lamp of the reader goes on.
2. Uniformly expose a 35x43 cm (14"x17") IP with a dosage of about 1mR (8.7 μ Gy) at about 80kV. Use a large SID (min.1.8m). Don't use any filters. Open the shutters of the collimator completely. Green label of the cassette shows to the anode of the tube.
Check the dosage with a dosimeter and write down the measured value and the time (now you have 10 minutes for the next steps).
3. Press <Ctrl> + <Esc> to get the task bar of WINDOWS.
4. Click on Start/ Run and browse for **c:\Program Files\FujiFilm\FCR\TOOLS\cr346uty.exe**.
The service program PC-MUTL will be started.
5. Select the reader unit and click on MUTL.
6. Login with cr-ir346 and the password cr-ir346.
7. Enter at the prompt \rightarrow mutl and press <Enter> to start the MUTL program at the reader.
8. Select **SCANNER UTILITY**.

9. Select **DATA MANAGEMENT, DISPLAY SCN DATA ETC** and **DISPLAY CURRENT DATA** and write down the following values:
HVCENT:e.g. 474
HVDATA:e.g. 474
10. Select **SHADING/ SENSITIVITY, SHADING/POLYGON** and **ON**.
11. Select **CALCULATION** and **SHADING,POLYGON AND SENSITIVITY**.
12. Enter the measured dose in [mR], e.g. 1.05, and press <Enter>.
13. After 10 minutes the IP has been exposed put the cassette into the reader.
14. When the IP has been read out ("Result: OK" appears), check again **DISPLAY CURRENT DATA**:

HVCENT:e.g. 512
QVDATA:e.g. 474 or *****
The upper value should differ a little bit from the previous one.

If you see extreme differences then reboot the reader and repeat all steps.
15. Select **DATA MANAGEMENT** and **SAVE SCN DATA FROM RAM TO FLASH& SERV** to make changes permanent effective.
Alternatively the backup function of PC-MUTL can be used to store the new data also on a floppy disk.
16. Leave and close the service programs.
17. Perform again the instructions given in **Check sensitivity setting**.
18. Make a backup of all scanner data onto a floppy diskette.

Note:

The sensitivity adjustment can also be executed by using a dose in a range of 0.5 to 10 mR.
Recommended is a value between one and two mR.

Sensitivity Adjustment – Tolerances:

Dose:	1 mR ± 10%	Measured in 1% resolution, at 80 kV and in 1.8m distance, without any filter. The deviation from 1mR has to be entered in 1% accuracy as the correction factor into the reader.
S value:	180... <u>200</u> ...220	10%
Pixel value:	486... <u>511</u> ...536	In main scan direction of the reader , that means from the left to the right IP edge. (5%)
Pixel value:	460... <u>511</u> ...562	In subscan direction of the reader , that means from top to bottom of the IP. (10%) The larger tolerance is caused by the tube (anode angle).
Density:	1.2... <u>1.5</u> ...1.8 1.0... <u>1.3</u> ...1.6 1.0... <u>1.3</u> ...1.6	No processing and curve 'a' of the lookup- table at EasyVision. UM processing and curve 'A' of the lookup-table at EasyVision. Standard processing at Compano S.